



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES

LANSING



REBECCA A. HUMPHRIES  
DIRECTOR

May 10, 2007

Resubmitted: May 14, 2007

TO: Rebecca A. Humphries, Director

INFORMATION: Natural Resources Commission

SUBJECT: Fish Disease Control (FO-245)

Authority:

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, authorizes the Director to provide for better protection and preservation of fish, game and birds.

Discussion and Background:

Viral hemorrhagic septicemia (VHS) is a viral fish disease that has caused large-scale mortalities in rainbow trout aquaculture operations in Europe and in herring populations along the Pacific Coast of North America. The disease is caused by Viral Hemorrhagic Septicemia Virus (VHSV). This virus has four unique genetic types; three from Europe and one from North America. The isolate found in the Great Lakes Basin is most similar to the VHS strain previously isolated from the Atlantic Coast in Eastern North America.

VHS is a reportable disease that requires notification of Departments of Agriculture, United States Department of Agriculture – Animal and Plant Health Inspection Service (USDA-APHIS), appropriate Canadian Agencies and International Organization for Animal Health (OIE). It is also listed as an emergency disease by the Great Lakes Fishery Commission - Great Lakes Model Fish Health Program. If this disease gets into a fish production facility or hatchery, the facility must be de-populated and all fish destroyed under the current Great Lakes Model Fish Health Program.

As of this date, the VHSV has been confirmed from the St. Clair River, Lake St. Clair, Lake Huron, Lake Erie, Lake Ontario, Niagara River, and the St. Lawrence River. It is not known exactly how this virus arrived in the Great Lakes nor is it known how long the virus has been here. Ballast water discharge is considered as a likely vector given its distribution in the lakes and the likely origin of the virus, the Maritime Provinces of Canada. The earliest confirmed report is 2003 in a Great Lakes muskellunge from Lake St. Clair, so it is likely to have been introduced here in 2002 or 2003.

NATURAL RESOURCES COMMISSION

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In the eastern part of the Great Lakes Basin, a large-scale mortality of freshwater drum occurred in 2005 in the Bay of Quinte, Lake Ontario in Ontario. In the spring of 2006, large-scale fish mortalities were observed in Lake St. Clair (Great Lakes muskellunge and yellow perch), St. Clair River (gizzard shad), Detroit River (Great Lakes muskellunge and gizzard shad), Lake Erie (freshwater drum, white bass, and yellow perch), Lake Ontario (round goby) and St. Lawrence River (Great Lakes muskellunge). VHSv isolated from the affected fish proved to be Type 4 (North American isolate).

It is possible that VHSv infections will initially result in increased natural mortality and fish kills for the stocks involved but will not result in any appreciable long-term changes in population abundance levels. Fish that have recovered from the infection are likely to serve as reservoirs to maintain the virus for future outbreaks which will have fish management implications for the use of fish from infected waters. Since this pathogen can clearly cause large-scale mortalities of valuable adult fish, and due to the wide range of potential carriers, it is critical to make every attempt to contain the pathogen and prevent a rapid spread of the disease to all Great Lakes and inland waters. It should be noted that once a pathogen gets into a wild fish community, it is impossible to eliminate, and control is highly unlikely.

This virus does not infect humans. There are no concerns with respect to human health with this pathogen and it cannot infect humans if they eat fish with the pathogen.

These proposed regulations will impact recreational anglers, wholesale and retail bait collectors and dealers, as well as the commercial fishing industry. Fisheries Division has shared information about this virus with representatives from these user groups. Information has and will continue to be posted on the Department web site so the public has access to the latest information and regulations regarding VHS.

Recommendation:

This order was submitted for information at the May 2007 Natural Resources Commission Meeting. This item appeared on the Department's May 1, 2007 calendar and is eligible for approval on June 7, 2007. We are recommending that it be acted upon at this meeting.



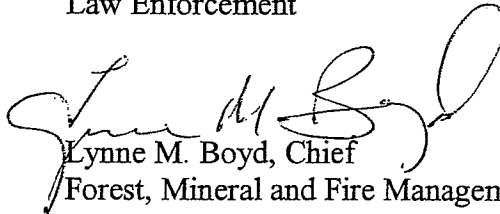
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Fisheries



Alan Marble, Chief  
Law Enforcement



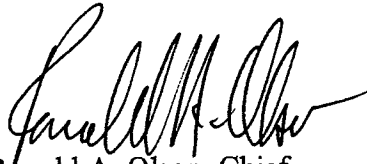
William E. Moritz, Chief  
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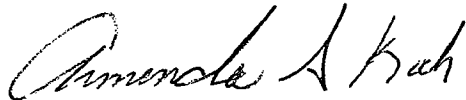
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Forest, Mineral and Fire Management



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Land and Facilities



Ronald A. Olson, Chief  
Parks and Recreation



Arminda S. Koch  
Resource Management Deputy

# ORDER

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## FISH DISEASE CONTROL

Under the authority of sections 41101 through 41105 of 1994 PA 451, being sections 324.41101 through 324.41105 of the Michigan Compiled Laws, the Director of the Department of Natural Resources (Department) on June 7, 2007 ordered that the following regulations apply to the waters of the State to protect against the further spread of Pathogens of concern.

The goals of the Department's actions under this Fish Disease Control Order are to protect the aquatic resources of the State, minimize the spread of Pathogens of concern to uninfected waters, and protect the Department's fish hatchery system. The Department will address the control of diseases of fish through the development of regulations for specific Management Areas that are designed to contain or slow the spread of Pathogens of concern.

### DEFINITIONS

As used in this Fish Disease Control Order, specific terms are defined as follows:

**Baitfish** – live or dead species of fish, or parts of fish excluding Roe, that are used by anglers to catch fish.

**Certification Process** – a process used by the Department to grant or deny applications from individuals who want to conduct certain activities that are regulated by this Fish Disease Control Order.

**Inland Waters** – all public waters of the State except for the Great Lakes and their connecting waters.

**Pathogen** – viruses, bacteria, fungi, and parasites that cause disease in living organisms.

**Prohibited Fish Species** – Baitfish and other species of fish identified by the Department as infected with one or more Pathogens of concern.

**Roe** – eggs of fish.

### REGULATION BY MANAGEMENT AREA

The Department uses a classification system to categorize waters based on their disease status. Specific Management Areas identified by the Department under this system include: 1) Named Pathogen Positive Management Area, where the presence of a named Pathogen has been confirmed; 2) Named Pathogen Surveillance Management Area, where a named Pathogen is likely to be found in the near future; and 3) Named Pathogen Free Management Area, where a named Pathogen has not been confirmed to date. Regulatory actions are designed for each Management Area to reduce the risk of spreading a Pathogen from, and in some cases containing a Pathogen within, a Named Pathogen Positive Management Area. Unique regulatory actions will be developed for each new Pathogen that is discovered, and such actions will take into account the likely dispersal routes for a Pathogen.

### GENERAL STATEWIDE PROVISIONS

1. The official list of Prohibited Fish Species for each Pathogen of concern as identified by the Department will be available from the Department and will be posted on Fisheries Division's web site (<http://www.michigan.gov/dnrfishing>). The list of Prohibited Fish Species for each Pathogen of concern as of June 28, 2007 is attached to this Fish Disease Control Order for reference only (Appendix A). Updates to the list of Prohibited Fish Species will be made as necessary. Those

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changes will be immediately posted on Fisheries Division's web site, and incorporated into this Fish Disease Control Order at least annually.

2. The official list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (<http://www.michigan.gov/dnrfishing>). The list of waters classified by Named Pathogen Management Area for each Pathogen of concern as of June 28, 2007 is attached to this Fish Disease Control Order for reference only (Appendix B). Updates to the list of waters classified by Named Pathogen Management Area will be made as necessary. Those changes will be immediately posted on Fisheries Division's web site, and incorporated into this Fish Disease Control Order at least annually.
3. The Certification Process includes two Parts: Part A) Status of a Facility and Part B) Status of Fish Health. The *Guide for Certification of Status of a Facility and Status of Fish Health* will identify the specific steps to be completed for each Pathogen of concern as identified by the Department, as well as when a Certification for Status of a Facility that has been granted, or a Certification for Status of Fish Health that has been granted, shall expire. The *Guide for Certification of Status of a Facility and Status of Fish Health* will be available from the Department and will be posted on Fisheries Division's web site (<http://www.michigan.gov/dnrfishing>).

Part A) Status of a Facility – Applicants who wish to keep Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, in a facility shall have that facility reviewed by the Department to ensure that there is minimal risk to public waters of the State and that appropriate biological security measures are in effect for the facility. The Department will review the results for each application under Part A) and respond to the applicant in writing with a letter of Certification for Status of a Facility that either grants or denies the application and includes the Department's rationale for the decision as well as the actions necessary for achieving certification. This Part A) does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.

Part B) Status of Fish Health – Applicants who wish to offer for sale or sell Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, shall have those Baitfish or that Roe tested for each Pathogen of concern by a certified laboratory that has been approved by the State of Michigan. Applicants shall submit the results of all tests to the Department. The Department will review the results for each application under Part B) and respond to the applicant in writing with a letter of Certification for Status of Fish Health that contains a transaction number, and that either grants or denies the application and includes the Department's rationale for the decision. This Part B) does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.

4. A person shall not stock Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, in holding facilities, ponds, or other waters that discharge into public waters of the State prior to completing Part A) of the Certification Process and receiving a letter of Certification for Status of a Facility from the Department permitting such activity. This Provision 4 does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.

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5. If an approved Certification for Status of a Facility is issued by the Department under Part A) of the Certification Process, an applicant shall carry that letter of Certification for Status of a Facility with them when transporting and stocking Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, in holding facilities, ponds, or other waters that discharge into public waters of the State. That letter of Certification for Status of a Facility shall be shown upon request. This Provision 5 does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.
6. A person shall not stock Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, in public waters of the State prior to receiving a Fish Stocking Permit from the Department permitting such activity.
7. If an approved Fish Stocking Permit is issued by the Department, an applicant shall carry that Fish Stocking Permit with them when transporting and stocking Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, in public waters of the State. That Fish Stocking Permit shall be shown upon request.
8. Except as otherwise provided for in this Fish Disease Control Order, a person shall not offer for sale or sell any Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, prior to completing Part B) of the Certification Process and receiving a letter of Certification for Status of Fish Health from the Department permitting such activity. This Provision 8 does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.
9. If an approved Certification for Status of Fish Health is issued by the Department under Part B) of the Certification Process, an applicant shall carry that letter of Certification for Status of Fish Health with them when transporting, offering for sale, or selling Baitfish or live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species. That letter of Certification for Status of Fish Health shall be shown upon request. This Provision 9 does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Prohibited Fish Species.
10. An owner of a State-licensed Baitfish wholesale operation shall provide to each wholesale purchaser at the point of sale a copy of the receipt that contains specific information as identified by the Department in the *Guide for Certification of Status of a Facility and Status of Fish Health*, as well as the transaction number from the letter of Certification for Status of Fish Health. An owner of a State-licensed Baitfish wholesale operation shall retain the original receipts for at least one year after the date of sale. Receipts shall be shown upon request.
11. A wholesale purchaser shall retain copies of receipts for purchases from a State-licensed Baitfish wholesale operation for at least one year after the date of sale. Receipts shall be shown upon request.
12. An owner of a State-licensed Baitfish retail operation shall provide to each retail customer at the point of sale a copy of a receipt that contains specific information as identified by the Department in the *Guide for Certification of Status of a Facility and Status of Fish Health*, as well as the transaction number from the letter of Certification for Status of Fish Health. An owner of a State-licensed Baitfish retail operation shall retain the original receipts for at least one year after the date of sale. Receipts shall be shown upon request.
13. A retail customer shall retain and show upon request the receipt for purchases of Baitfish or Roe from a State-licensed Baitfish retail operation. A receipt shall be valid for seven days from the date of sale.

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14. All species of live fish and Roe maintained at a location by an owner of a State-licensed commercial fishing operation, an owner of a State-licensed Baitfish wholesale operation, or an owner of a State-licensed Baitfish retail operation shall be considered uncertified if live fish that are listed as Prohibited Fish Species, or Roe taken from fish that are listed as Prohibited Fish Species, are also maintained at that location and those live fish or that Roe have not been approved as required under Part B) of the Certification Process.
15. A person, who catches fish in a lake or a Great Lake, shall not release those fish alive in any public waters of the State if those fish are listed as Prohibited Fish Species, except that those fish may be released alive in that lake, or that Great Lake, or in a connecting body of water to that lake, or that Great Lake, so long as those fish can freely move between the original location of capture and the location of release. This Provision 15 does not apply to Baitfish.
16. A person who catches fish in a stream shall not release those fish alive in any public waters of the State if those fish are listed as Prohibited Fish Species, except that those fish may be released alive in any part of that stream, or in a connecting body of water to that stream, so long as those fish can freely move between the original location of capture and the location of release. This Provision 16 does not apply to Baitfish.
17. Except as further restricted in this Fish Disease Control Order, a person shall not use or otherwise release Baitfish that are listed as Prohibited Fish Species, or Roe harvested from fish that are listed as Prohibited Fish Species, in any public waters of the State, unless that person is fishing and those Baitfish or that Roe are attached to a hook.
18. A person who moves a boat over land between bodies of water shall drain all water from the live well(s) and the bilge of their boat upon leaving any body of water.

**SECTION I – Viral Hemorrhagic Septicemia Virus (VHSv)**

Viral hemorrhagic septicemia virus (VHSv) is a disease of fish that has caused large-scale mortalities of fish in aquaculture operations in Europe, in certain populations of wild fish along the Pacific Coast of North America, and now in various populations of wild fish in several areas of the Great Lakes Basin. There are four known genetic types of the virus, three in Europe where VHSv originated and one in North America. The genetic type found in the Great Lakes Basin (VHSv IVb) is most similar to the strain of VHSv previously isolated from the Atlantic Coast of Eastern North America. VHSv types I, II, and III have caused significant mortalities, particularly in rainbow trout in European aquaculture facilities. In the Great Lakes Basin, VHSv IVb has caused mortalities in several species of wild fish inhabiting Lake Huron, the St. Clair River, Lake St. Clair, the Detroit River, Lake Erie, the Niagara River, Lake Ontario, and the St. Lawrence River.

On October 24, 2006 (as amended on November 14, 2006 and again on May 4, 2007), a federal Emergency Order was issued by the Animal and Plant Health Inspection Service of the United States Department of Agriculture in an effort to prevent the spread of VHSv between States and between the U.S. and Canada, thus hopefully protecting economically important sport fisheries and aquaculture operations. This Fish Disease Control Order is consistent with the federal Emergency Order (as amended), and it provides for additional protections to slow the spread of VHSv throughout the Great Lakes and Inland Waters under the jurisdiction of Michigan that are not covered by the federal Emergency Order (as amended).

VHSv is likely to continue spreading in fish throughout the Great Lakes Basin via the natural movements of infected fish. Although the virus may take years to infect fish in Lake Superior, it could be rapidly moved by ships that discharge untreated ballast water, the stocking of infected fish, or the unintended movement of water by boaters and anglers that contains either the virus itself or live fish that are infected with the virus. While containment and eradication of VHSv are likely not possible, the regulations specified in this Fish Disease Control Order are necessary to slow the spread of VHSv, thus providing the

**Fish Disease Control Order**  
**Section I – Viral Hemorrhagic Septicemia Virus (VHSv)**

time required to develop strategies for managing the Pathogen. The restrictions detailed below will help the Department to 1) protect populations of wild fish in Inland Waters, and in several areas of the Great Lakes, that are not yet infected with the virus; 2) protect wild populations of fish used as broodstock for fisheries management, and 3) prevent the infection of fish being reared in State-owned fish hatcheries.

**Management Area Regulations for Viral Hemorrhagic Septicemia virus (VHSv)**

VHSv Positive Management Area

On all waters designated within the VHSv Positive Management Area, the following regulations further restrict the transportation, sale, use, and release of Baitfish and fish that are listed as Prohibited Fish Species, and Roe taken from fish that are listed as Prohibited Fish Species, that **have not** been approved as required under Part B) of the Certification Process.

**Recreational anglers**

1. A person who catches Baitfish that are listed as Prohibited Fish Species, or harvests Roe from fish that are listed as Prohibited Fish Species, in a body of water that is included in the VHSv Positive Management Area shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters included in the VHSv Positive Management Area subject to Provision 17 under the General Statewide Provisions.
2. A person who purchases Baitfish that are listed as Prohibited Fish Species, or purchases Roe from fish that are listed as Prohibited Fish Species, shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters included in the VHSv Positive Management Area subject to Provision 17 under the General Statewide Provisions.

**State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations**

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not transport Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Positive Management Area, unless that owner has documentation demonstrating proof that those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Positive Management Area.
2. Documentation demonstrating proof that each species of Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, has been harvested from a body of water that is included in the VHSv Positive Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not offer for sale or sell Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Positive Management Area, unless that owner has clearly identified at the point of sale that those Baitfish or that Roe may only be used in a body of water that is included in the VHSv Positive Management Area.

VHSv Surveillance Management Area

On all waters designated within the VHSv Surveillance Management Area, the following regulations further restrict the transportation, sale, use, and release of Baitfish and fish that are listed as Prohibited Fish Species, and Roe taken from fish that are listed as Prohibited Fish Species, that **have not** been approved as required under Part B) of the Certification Process.



## Fish Disease Control Order

### Section I – Viral Hemorrhagic Septicemia Virus Surveillance Management Area

#### **Recreational anglers**

1. A person who catches Baitfish that are listed as Prohibited Fish Species, or harvests Roe from fish that are listed as Prohibited Fish Species in a body of water that is included in the VHSv Surveillance Management Area shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters included in either the VHSv Positive Management Area or the VHSv Surveillance Management Area subject to Provision 17 under the General Statewide Provisions.
2. A person who purchases Baitfish that are listed as Prohibited Fish Species, or purchases Roe from fish that are listed as Prohibited Fish Species, shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters included in either the VHSv Positive Management Area or the VHSv Surveillance Management Area subject to Provision 17 under the General Statewide Provisions.

#### **State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations**

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not transport Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Surveillance Management Area, unless that owner has documentation demonstrating proof that those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Surveillance Management Area.
2. Documentation demonstrating proof that each species of Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, has been harvested from a body of water that is included in the VHSv Surveillance Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not offer for sale or sell Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Surveillance Management Area, unless that owner has clearly identified at the point of sale that those Baitfish or that Roe may only be used in a body of water that is included in either the VHSv Positive Management Area or the VHSv Surveillance Management Area.

#### VHSv Free Management Area

On all waters designated within the VHSv Free Management Area, the following regulations apply to the transportation, sale, use, and release of Baitfish and fish that are listed as Prohibited Fish Species, and Roe taken from fish that are listed as Prohibited Fish Species, that **have not** been approved as required under Part B) of the Certification Process.

#### **Recreational anglers**

1. A person who catches Baitfish that are listed as Prohibited Fish Species, or harvests Roe from fish that are listed as Prohibited Fish Species in a body of water that is included in the VHSv Free Management Area may use those Baitfish or that Roe in any public waters of the State, subject to Provision 17 under the General Statewide Provisions.
2. A person who purchases Baitfish that are listed as Prohibited Fish Species, or purchases Roe from fish that are listed as Prohibited Fish Species, that has been harvested from a body of water included in the VHSv Free Management Area may use those Baitfish or that Roe in any public waters of the State, subject to Provision 17 under the General Statewide Provisions.

**Fish Disease Control Order**

**Section I – Viral Hemorrhagic Septicemia Virus Free Management Area**

**State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations**

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation may transport Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, so long as those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area and that owner has documentation demonstrating proof that those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area.
2. Documentation demonstrating proof that each species of Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, has been harvested from a body of water that is included in the VHSv Free Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation may offer for sale or sell Baitfish that are listed as Prohibited Fish Species, or Roe from fish that are listed as Prohibited Fish Species, so long as those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area and that owner has clearly identified at the point of sale that those Baitfish or that Roe may be used in any waters of the State.

This Fish Disease Control Order is assigned number FO-245 and is titled "Fish Disease Control". If a discrepancy occurs between this Fish Disease Control Order, FO-245 and other orders and laws currently in existence, then the more restrictive regulation shall take precedence.

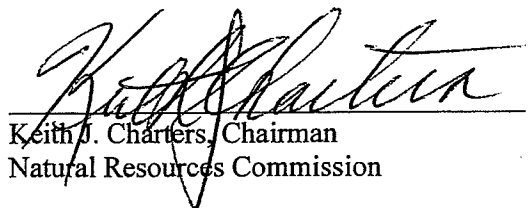
This Fish Disease Control Order, FO-245 shall take effect on June 28, 2007 and shall remain effective through June 27, 2012.

Issued at Lansing, Michigan, this 7<sup>th</sup> day of June, 2007.



Rebecca A. Humphries, Director  
Michigan Department of Natural Resources

The Natural Resources Commission reviewed this Fish Disease Control Order, FO-245.



Keith J. Charters, Chairman  
Natural Resources Commission



Teresa Gloden, Executive Secretary  
Natural Resources Commission

# FISH DISEASE CONTROL ORDER, FO-245

## Appendix A

The official list of Prohibited Fish Species for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (<http://www.michigan.gov/dnrfishing>). This Appendix A, which contains the list of Prohibited Fish Species for each Pathogen of concern as identified by the Department of Natural Resources as of June 28, 2007, is incorporated by reference into this Fish Disease Control Order, FO-245.

	Prohibited Fish Species <sup>1</sup>	Pathogen of concern
Common name	Scientific name	Section I VHSv
Black crappie	<i>Pomoxis nigromaculatus</i>	X
Bluegill	<i>Lepomis macrochirus</i>	X
Bluntnose minnow	<i>Pimephales notatus</i>	X
Brown bullhead	<i>Ictalurus nebulosus</i>	X
Brown trout	<i>Salmo trutta</i>	X
Burbot	<i>Lota lota</i>	X
Channel catfish	<i>Ictalurus punctatus</i>	X
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	X
Coho salmon	<i>Oncorhynchus kisutch</i>	X
Emerald shiner	<i>Notropis atherinoides</i>	X
Freshwater drum	<i>Aplodinotus grunniens</i>	X
Gizzard shad	<i>Dorosoma cepedianum</i>	X
Lake whitefish	<i>Coregonus clupeaformis</i>	X
Largemouth bass	<i>Micropterus salmoides</i>	X
Muskellunge	<i>Esox masquinongy</i>	X
Northern pike	<i>Esox lucius</i>	X
Pacific herring	<i>Clupea pallasii</i>	X
Pink salmon	<i>Onchorhynchus gorbuscha</i>	X
Pumpkinseed	<i>Lepomis gibbosus</i>	X
Rainbow trout	<i>Oncorhynchus mykiss</i>	X
Rock bass	<i>Ambloplites rupestris</i>	X
Round goby	<i>Neogobius melanostomus</i>	X
Shorthead redhorse	<i>Moxostoma macrolepidotum</i>	X
Silver redhorse	<i>Moxostoma anisurum</i>	X
Smallmouth bass	<i>Micropterus dolomieu</i>	X
Spottail shiner	<i>Notropis hudsonius</i>	X
Trout perch	<i>Percopsis omiscomaycus</i>	X
Walleye	<i>Sander vitreus</i>	X
White bass	<i>Morone chrysops</i>	X
White perch	<i>Morone americana</i>	X
White sucker	<i>Catostomus commersonii</i>	X
Yellow perch	<i>Perca flavescens</i>	X

<sup>1</sup> An "X" for a species of fish under each Section/named Pathogen signifies that the species has been identified by the Department as infected with that Pathogen of concern. Such species of fish are therefore subject to the restrictions imposed by this Fish Disease Control Order, FO-245.

# FISH DISEASE CONTROL ORDER, FO-245

## Appendix B

The official list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (<http://www.michigan.gov/dnrfishing>). This Appendix B, which contains the list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department of Natural Resources as of June 28, 2007, is incorporated by reference into this Fish Disease Control Order, FO-245.

### SECTION I – Viral Hemorrhagic Septicemia Virus (VHSV)

#### VHSV Positive Management Area

Lake Huron including Saginaw Bay, the St. Clair River, Lake St. Clair, the Detroit River, and Lake Erie are classified as a VHSV Positive Management Area. All tributaries to Lake Huron including Saginaw Bay, to the St. Clair River, to Lake St. Clair, to the Detroit River, and to Lake Erie are classified as a VHSV Positive Management Area in their entirety or from their confluence upstream to the first barrier that prevents the upstream passage of fish if such a barrier exists.

#### VHSV Surveillance Management Area

Lake Michigan including Grand Traverse bays and bays de Noc, and the St. Marys River are classified as a VHSV Surveillance Management Area. All tributaries to Lake Michigan including Grand Traverse bays and bays de Noc, and to the St. Marys River are classified as a VHSV Surveillance Management Area in their entirety or from their confluence upstream to the first barrier that prevents the upstream passage of fish if such a barrier exists. All Inland Waters in the watersheds of Lake Huron including Saginaw Bay, of the St. Clair River, of Lake St. Clair, of the Detroit River, and of Lake Erie are classified as a VHSV Surveillance Management Area, except for those tributaries to Lake Huron including Saginaw Bay, to the St. Clair River, to Lake St. Clair, to the Detroit River, and to Lake Erie that are classified as a VHSV Positive Management Area.

#### VHSV Free Management Area

Lake Superior and all Inland Waters in the watersheds of Lake Superior are classified as a VHSV Free Management Area. All Inland Waters in the watersheds of Lake Michigan including Grand Traverse bays and bays de Noc, and of the St. Marys River are classified as a VHSV Free Management Area, except for those tributaries to Lake Michigan including Grand Traverse bays and bays de Noc, and to the St. Marys River that are classified as a VHSV Surveillance Management Area.